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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,569	10/19/2000	Keiji Watanabe	0941.64850	7511

7590 09/26/2002

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EXAMINER

RESAN, STEVAN A

ART UNIT	PAPER NUMBER
1773	01

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-11

# Office Action Summary

Application No.  
09/692569

Applicant(s)  
WATANABE et al

Examiner  
RESAW

Group Art Unit  
1773

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-8 29 is/are pending in the application.
- Of the above claim(s) 9-29 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-8 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some\* ☐ None of the:
  - ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 1773

1. Applicant's election without traverse of claims 1-8 in Paper No. 10 is acknowledged.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh et al 5,614,314.

See table1 fourth embodiment which the examiner deems produces carbonyl bonding (col. 5, line 6).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al 5,614,314 in view of prior art (hard) disk drives.

Itoh at col. 1, lines 46-60 disclose that the magnetic disk of the invention may be used in a magnetic disk drive. While Itoh et al do not disclose details, prior art disk drives contain the nominal components as claimed (See Obara cited below). Therefore it would have been obvious to one of ordinary skill in the art to use the disk of Itoh et al in a magnetic disk drive as claimed in order to read and write from and to it.

Art Unit: 1773

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al 5,637,393.

Ueda et al disclose a magnetic recording medium comprising a substrate and a magnetic film formed on the substrate and a carbon film formed on the substrate wherein the carbon film contains oxygen atoms and nitrogen atoms (see examples).

While the media of the examples are not in the form of disks, Ueda at col. 1, line 7 discloses that the field of the invention includes the use of the media in a magnetic disk apparatus. Therefore it would have been obvious to one of ordinary skill in the art that the protective layer disclosed by Ueda et al would also function in a like manner on disk media and in a disk drive as was conventional to employ for disk media. (see Obara cited below).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Obara is cited for teaching a prior art disk drive unit.

Kokai et al is cited for teaching a magnetic recording medium comprising a carbon film wherein the upper layer is oxidized to form an oxidized surface or the upper layer is formed by CVD or sputtering using an atmosphere containing oxygen.

Kobliska et al is cited for teaching embedding oxygen into the top surface of the carbon layer of a magnetic recording media.

Ueda et al '602 is cited for teachings similar to the '393 patent but in addition regulating the SP<sup>3</sup>/SP<sup>2</sup> ratio in the carbon layer.

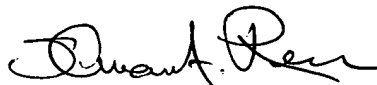
Art Unit: 1773

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stevan Resan whose telephone number is 703-308-4287. The examiner can normally be reached on Tuesday-Friday; 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-5436 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Examiner Resan/ng  
September 25, 2002

  
**STEVAN A. RESAN**  
**PRIMARY EXAMINER**